

SEQUENCE LISTING

<110> SHOWA DENKO K.K.

<120> NOVEL RHODOCOCCLUS BACTERIA, NITRILASE GENE, NITRYL HYDRATASE GENE AND AMIDASE GENE FROM RHODOCOCCLUS BACTERIUM, AND PROCESS FOR PRODUCING CARBOXYLIC ACIDS USING THEM

<130> Q64574

<140> 09/869,142

<141> 2001-06-26

<150> USSN 60/183,754

<151> 2000-02-22

<150> USSN 60/183,821

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<150> JPA 2000-107855

<151> 2000-04-10

<150> JPA 2000-021797

<151> 2000-01-26

<150> JPA 11-303212

<151> 1999-10-26

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<170> PatentIn version 3.1

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Pro Arg Pro Leu Tyr Thr Val Ala Phe Ser Ala Gln Glu Leu Trp Gly
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Glu Glu Phe Ala Pro Ala Leu Glu Ala Thr Leu Ala Ser Ser Glu Thr
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Gly Ser Arg Thr Val Glu Gly Phe Thr Pro Arg Tyr Asp Ala Thr Val
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Cys	Glu	Asp	Leu	Cys	Phe	Ser	Gly	Ala	Ser	Phe	Thr	Ser	His	Pro	Gln	
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ccg	gtc	cgc	aac	ccc	tgg	gac	gaa	agc	cgc	atc	acc	ggc	ggc	tcg	tcc	1609
Pro	Val	Arg	Asn	Pro	Trp	Asp	Glu	Ser	Arg	Ile	Thr	Gly	Gly	Ser	Ser	
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Ser	Gly	Ser	Gly	Ala	Leu	Val	Ala	Ser	Gly	Gln	Val	Asp	Met	Ala	Val	
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Ile	Val	Gly	His	Lys	Pro	Thr	His	Gly	Leu	Val	Pro	Tyr	Thr	Gly	Ala	
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Arg	Ala	Asp	Asp	Glu	Phe	Glu	Ala	Phe	Leu	Leu	Gln	Val	Leu	Asp	Glu	
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Asn	Ala	Val	Thr	Ile	Pro	Glu	Leu	Gly	Gln	Val	Arg	Ala	Gln	Thr	Pro	
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Cys	Ser	Asn	His	Pro	Gly	Ser	Arg	Ser	Arg	Trp	Thr	Gly	His	Glu	Arg	
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Cys	Gly	Asn	Ser	Thr	Ala	Thr	Cys	Ser	Thr	Arg	Arg	Pro	Arg	Pro	Arg	
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Pro	Ser	Val	Pro	Ser												
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35 40 45

Tyr Glu Arg Thr Ala Pro Glu Pro Pro Gln Arg Ser Trp Thr Ser Pro
50 55 60

Thr Ala Asp Glu Asn Pro Leu Ser Ala Trp Tyr Val Thr Thr Ser Ile
65 70 75 80

Ser Glu Thr Asp Glu Gly Pro Leu Ala Gly Arg Thr Val Ala Val Lys
85 90 95

Asp Asn Val Ala Val Ala Gly Val Pro Met Met Asn Gly Ser Arg Thr
100 105 110

Val Glu Gly Phe Thr Pro Arg Tyr Asp Ala Thr Val Val Arg Arg Leu
115 120 125

Leu Asp Ala Gly Ala Thr Ile Thr Gly Lys Ala Val Cys Glu Asp Leu
130 135 140

Cys Phe Ser Gly Ala Ser Phe Thr Ser His Pro Gln Pro Val Arg Asn
145 150 155 160

Pro Trp Asp Glu Ser Arg Ile Thr Gly Gly Ser Ser Ser Gly Ser Gly
165 170 175

Ala Leu Val Ala Ser Gly Gln Val Asp Met Ala Val Gly Gly Asp Gln
180 185 190

Gly Gly Ser Ile Arg Ile Pro Ala Ala Phe Cys Gly Ile Val Gly His
195 200 205

Lys Pro Thr His Gly Leu Val Pro Tyr Thr Gly Ala Phe Pro Ile Glu
210 215 220

Arg Thr Ile Asp His Leu Gly Pro Met Thr Arg Thr Val Ser Asp Ala
225 230 235 240

Ala Ala Met Leu Thr Val Leu Ala Gly Thr Asp Gly Leu Asp Pro Arg
245 250 255

Gln Thr His Arg Ile Glu Pro Val Asp Tyr Leu Ala Ala Leu Ala Glu
260 265 270

Pro Ala Ser Gly Leu Arg Val Gly Val Val Thr Glu Gly Phe Asp Thr
275 280 285

Pro Val Ser Asp Ala Ala Val Asp Asn Ala Val Arg Thr Ala Ile Gly
290 295 300

Val Leu Arg Ser Ala Gly Leu Thr Val Glu Glu Val Ser Ile Pro Trp
305 310 315 320

His Leu Asp Ala Met Ala Val Trp Asn Val Ile Asp Arg Ala Asp Asp
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Glu Phe Glu Ala Phe Leu Leu Gln Val Leu Asp Glu Asn Ala Val Thr
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Ile Pro Glu Leu Gly Gln Val Arg Ala Gln Thr Pro Arg Ser Trp Cys
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Ala Cys Thr Thr Gly Ser Asn Thr Pro Thr Ser Arg Gly Lys Trp Arg
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Ser Pro Thr Pro Cys Arg Pro Cys Ala Gly Trp Thr Cys Ser Asn His
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Pro Gly Ser Arg Ser Arg Trp Thr Gly His Glu Arg Cys Gly Asn Ser
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Thr Ala Thr Cys Ser Thr Arg Arg Pro Arg Pro Arg Pro Ser Val Pro
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Ser
465